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| APPLICATION NO.  | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|--|---------------|----------------------|-------------------------|------------------|--|
| 09/966,723   | 10/01/2001    | Kazuhiko Koike       | 461-30                  | 3620             |  |
| 75   | 90 03/05/2003 |                      |                         |                  |  |
| NIXON & VANDERHYE P.C. 8th Floor 1100 North Glebe Road |               |                      | EXAMINER                |                  |  |
|  |               |                      | WRIGHT, WILLIAM G       |                  |  |
| Arlington, VA  | 22201         |                      | ART UNIT                | PAPER NUMBER     |  |
|  |               |                      | 1754                    |                  |  |
|  |               |                      | DATE MAILED: 03/05/2003 |                  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary   |  | Applicatio   | n No.  | Applicant(s)  |            |  |  |  |  |
|---|--|--|--|---|------------|--|--|--|--|
|   |  | 09/966,72  | 3  | KOIKE ET AL.  |            |  |  |  |  |
|   |  | Examiner   |  | Art Unit  |            |  |  |  |  |
|   |  | William G.   |  | 1754  |            |  |  |  |  |
| Th MAILING DATE of this communication app ars on th cover sh et with the correspondenc addr ss Period for Reply   |  |  |  |   |            |  |  |  |  |
| THE I - Exter after - If the - If NO - Failu - Any r  | ORTENED STATUTORY PERIOD FOR REPLY MAILING DATE OF THIS COMMUNICATION. Insions of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. In period for reply specified above is less than thirty (30) days, a reply of period for reply is specified above, the maximum statutory period we are to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).  | 36(a). In <b>no</b> ever<br>within the statu<br>will apply and will<br>cause the appli | nt, however, may a reply be time<br>fory minimum of thirty (30) days<br>expire SIX (6) MONTHS from<br>cation to become ABANDONEI | ely filed s will be considered timely. the mailing date of this comm O (35 U.S.C. § 133). | unication. |  |  |  |  |
| 1)  | Responsive to communication(s) filed on  | ·  |  |   |            |  |  |  |  |
| 2a) <u></u> □   | This action is <b>FINAL</b> . 2b)⊠ Thi   | is action is   | non-final.   |   |            |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. |  |  |  |   |            |  |  |  |  |
| ·   | ion of Claims  |  |  |   |            |  |  |  |  |
|   | ✓ Claim(s) 1-41 is/are pending in the application. 42) O(the above plains(a) and is/are pit/are it/are |  |  |   |            |  |  |  |  |
|   | 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |  |   |            |  |  |  |  |
|   | Claim(s) is/are allowed.   |  |  |   |            |  |  |  |  |
|   | Claim(s) <u>1-41</u> is/are rejected.  Claim(s) is/are objected to.  |  |  |   |            |  |  |  |  |
| •   | Claim(s) are subject to restriction and/or   | r election re  | auirement  |   |            |  |  |  |  |
|   | ion Papers   | i election le  | quirement.   |   |            |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |  |  |  |   |            |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  |  |  |  |   |            |  |  |  |  |
|   | Applicant may not request that any objection to the  | e drawing(s)   | be held in abeyance. Se  | ee 37 CFR 1.85(a).  |            |  |  |  |  |
| 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.  |  |  |  |   |            |  |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |  |  |  |   |            |  |  |  |  |
| 12)☐ The oath or declaration is objected to by the Examiner.  |  |  |  |   |            |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |  |  |  |   |            |  |  |  |  |
| 13)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  |  |  |  |   |            |  |  |  |  |
| a)⊠ All b)□ Some * c)□ None of:   |  |  |  |   |            |  |  |  |  |
|   | 1. Certified copies of the priority documents have been received.  |  |  |   |            |  |  |  |  |
|   | 2. Certified copies of the priority documents have been received in Application No   |  |  |   |            |  |  |  |  |
| * S   | <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>  |  |  |   |            |  |  |  |  |
|   | 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).   |  |  |   |            |  |  |  |  |
| a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.                               |  |  |  |   |            |  |  |  |  |
| Attachmen   |  | o priority ur  | 201 00 0.0.0. 33 120   | unu/01 121.   |            |  |  |  |  |
| 1) Notic  | e of References Cited (PTO-892)<br>e of Draftsperson's Patent Drawing Review (PTO-948)<br>mation Disclosure Statement(s) (PTO-1449) Paper No(s)  |  |  | r (PTO-413) Paper No(s).<br>Patent Application (PTO-1                                     |            |  |  |  |  |

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## **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 1,11,20,21,25 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Farrauto '360. The claimed cell structure and gas flow passages of the instant invention are found in the reference.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  - 1. Determining the scope and contents of the prior art.
  - 2. Ascertaining the differences between the prior art and the claims at issue.
  - 3. Resolving the level of ordinary skill in the pertinent art.
  - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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- 5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 6. Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable Strehlau et al. '904 or Farrauto et al. '360.

Strehlau et. al '904, discloses catalyst on carriers with flow channels, noted cell density, coating on the walls and the claimed pitch features in a regular array of a honeycomb support. Note Strehlau at col. 2 for flow channels and at claim 24 for a coating being on the walls of the flow channels. Strehlau differs from the claimed invention in the lack of the disclosure of the pitch of the cells, and the use of a corrugated surface. Strehlau does disclose at col. line 62 through col. 2 line 4 the relationship of the flow axis of the cells and how the cells are found in a regular array over the cross section of a honeycomb structure, thus reading on a pitch for the flow channels which may produce a shaped surface (eg. corrugations). The use of a corrugated surface, as is known in the art, is derived from Strehlau at col. 7 line 16 and following. Farrauto et. al '360, discloses catalyst on a carrier (cordierite col. 2 line 64), noted cell density and flow passages at col. 4, and coating on the walls of the cells in claim 13. For cross-sectional shape note col. 8 line 66, and col. 9 line 1 and following for a corrugated surface with an amplitude of the corrugations. Here alternating layers of flat and wave form plates of a suitable material is

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however

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noted. Farrauto et. al '360, lacks the disclosure for the pitch of the cells, the pitch of the cells can be derived from the gas flow passages being defined at col. 8 line 65 through col. 9 line 4.

Each of the applied references is to catalyst with the same claimed structure containing coated and shaped flow channels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William G. Wright SR. whose telephone number is (703) 305-7792. The examiner can normally be reached on Monday through Thursday; 6:30am to 5:00pm...

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.

February 28, 2003